DOCUMENT RESUME

ED 337 955 EC 300 697

AUTHOR Moore, Dennis
TITLE Research in Substance Abuse and Disabilities: The Implications for Prevention and Treatment.
PUB DATE Apr 90
NOTE 17p.; Paper presented at the Annual Meeting of the National Prevention and Training Conference: People with Disabilities (3rd, April 4-7, 1990). For related document, see EC 300 696.
PUB TYPE Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Disabilities; Elementary Secondary Education; Individual Characteristics; *Intervention; Postsecondary Education; *Prevention; Research Problems; Special Programs; *Substance Abuse

ABSTRACT

This paper reviews literature related to substance abuse and persons with disabilities. The paper distinguishes between congenital disability and trauma-generated conditions and the impact on drug use. Drug use patterns are also differentiated by type and severity of disability categories including mental illness, orthopedic and physical disability, learning disability, hearing impairment and deafness, visual impairment, and developmental disability or mental retardation. Special problems when studying substance abuse among the disabled include low awareness of the problem among family members, friends, and professionals; sampling problems in substance abuse research; and limited resources for research. Substance abuse risk factors that are unique to individuals with disabilities include societal entitlement of drug use by individuals with disabilities, physical health problems, long-term use of medication, atypical childhood experiences, sexuality, and chronic pain. Persons with disabilities may need specialized or additional services for chemical dependency treatment. Development of these services requires consideration of such issues as use of a treatment model other than the disease model, use of therapeutic drugs in the form of prescribed medications, use of "handicapped" behaviors by clients, involvement of significant others, and aftercare. Future directions are discussed. (Includes 27 references) (JDD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Research in Substance Abuse and Disabilities:

The Implications for Prevention and Treatment

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Plenary Session Paper Presented at
The Third National Prevention and Training Conference
People with Disabilities
April 4-7, 1990

Dennis Moore, Ed.D., C.A.C.
Project Director, Department of Community Health
Wright State University School of Medicine

ED337955

This paper will address several aspects of the available literature related to substance abuse and persons with disabilities. The demographics of persons with disabilities will be explored; then each sub-population will be described relative to the substance abuse research that exists. Assumptions based on existing studies will be discussed, and observations will be drawn from the limited data. Special concerns and areas of high risk will be highlighted. Finally, future directions for this field will be discussed.

Descriptions of Research by Disability Categories

In spite of the numerous labels available to classify disabilities, these physical and mental conditions do not lend themselves to one simple system of classification. Disability categories overlap, and frequently an individual is classified with more than one disabling condition. For example, the disabilities utilized to classify school children are quite different than those applied to adults. Two sets of tables point this out (see Table 1 and Table 2).

Table 1 portrays the distribution of congenital and other serious handicapping conditions affecting children. These statistics are derived from the Office of Special Education, Department of Education (1983). The largest category of students in special education programs in the United States are those with learning disability, and at the time of this survey there were approximately 1.6 million in this category. Compared with the adult statistics, children with orthopedic disorders represent a small fraction of the special education population. At the time of this survey 58,000 were classified with an orthopedic disability. The majority of orthopedic impairments listed on this table likely are congenital in nature. This is an important distinction which will be discussed later in the paper.

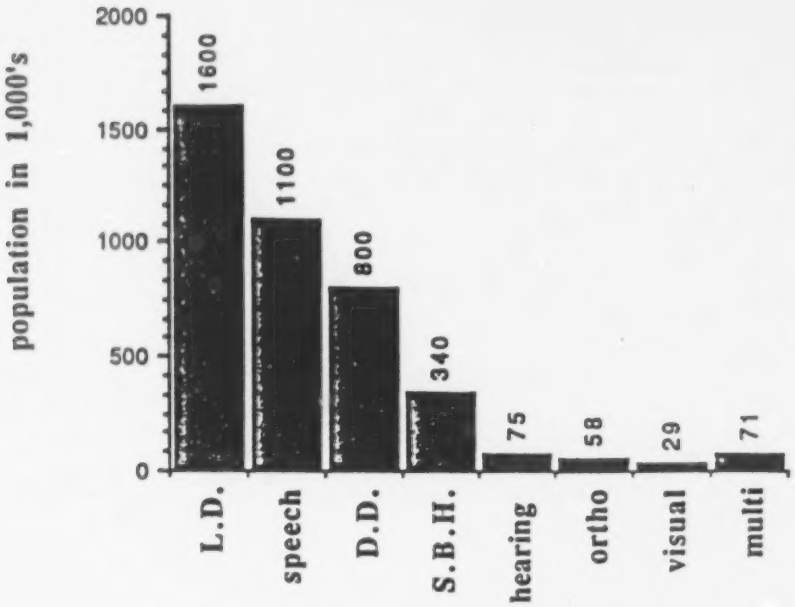
By contrast, Table 2 lists disabilities principally in adults, as reported in the National Household Survey. The figures published in 1979 are provided, and it was determined that there were approximately 40 million Americans classified as temporarily or permanently disabled. This figure represents almost one fifth of the adult population of this country. Some of the disabilities reported in this survey are transient in nature, such as gastrointestinal problems including ulcers. In fact, persons with gastrointestinal disorders represent a sizable constituency of the disabled (over 20 million persons, but not shown in Table 2), but there is little awareness of this situation. Consider for a moment the tremendous role of alcohol use in creating or exacerbating ulcers. The relationship between alcohol abuse and disa-

EC 300697

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Dennis Moore
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

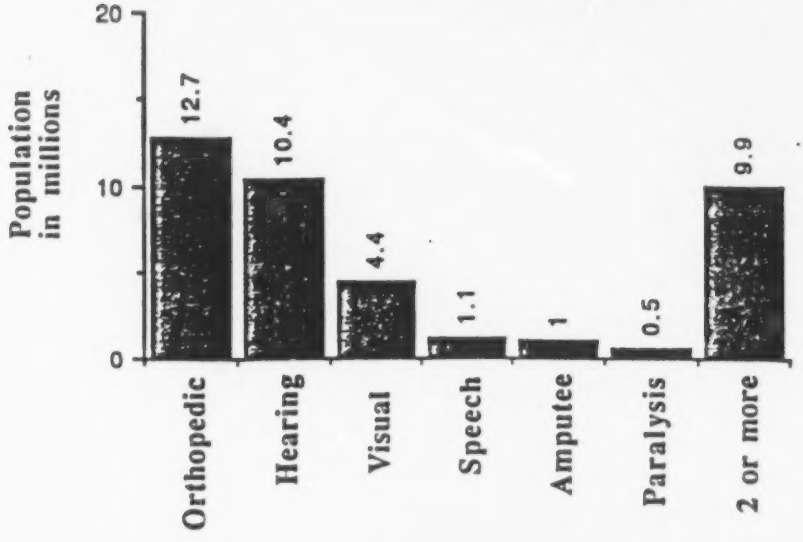
BEST COPY AVAILABLE

TABLE 1
DISTRIBUTION OF SPECIAL EDUCATION BY DISABILITY CATEGORIES



Source: Office of Special Education and Rehabilitation Services, 1983

TABLE 2
NATIONAL HEALTH STATISTICS DISABILITY POPULATIONS



Source: National Household Survey, Health Interview, 1977

bility is quite apparent with this particular condition.

Persons with orthopedic impairment represent the next largest classification of adults, with 12.7 million persons qualifying here (Table 2). This condition also includes both transient and permanent disability. Amputees represent one million persons, and those with paralysis, approximately one-half million.

Although the process of aging can distinguish some disabilities between Table 1 and 2, the role of accidents or preventable medical conditions also must be explored. A large number of disabilities occur due to accidents. When reviewing alcohol mentions from emergency room admissions, we find that teenagers and young adults report alcohol or drug consumption in at least one third of all admissions requiring further hospitalization (N.I.A.A.A., 1990). Based on the available statistics from emergency room admissions, as well as investigations of traffic accidents, falls, and gunshot wounds, it is clear that alcohol or other drug abuse plays a significant role in trauma generated disabilities (Anda, et al,1988). This is especially true for Americans from the ages of 14 to 40. Even among the elderly, it is estimated that disabling falls may involve alcohol abuse in 50% of all cases (Weingarden, et al,1989). The proportion of alcohol related traumas is reported as higher with more serious injuries in most age groups (Kraus et al.,1989).

The distinction between congenital disability (occurring before or at birth) and trauma-generated condition is an important one. The two tables demonstrate how the number of persons with disabilities increases with age. As later sections of this paper will address, substance abuse patterns often are different between persons with a congenital versus a trauma disability.

Substance Abuse Research by Disability Categories

It is important that we not make gross generalizations about alcohol and other drug use among all disabled persons. The nature of handicapping conditions precludes these types of comments. The social, psychological, and occupational factors impacting someone who is severely hearing impaired are quite different than those experienced by an individual with developmental disability or mental retardation. Less clear are differing factors influencing drug use between someone with a congenital orthopedic condition as compared with an individual with a spinal cord injury. Even beyond these distinctions, the range and manifestation of handicapping conditions can be great even within the same etiology for a disability. Therefore it is imperative that we look at drug use patterns among persons with disabilities by differentiating as much as possible the various types and severity of disability categories.

Having provided the above disclaimer, the following information on drug use and abuse by disability categories has been gleaned from the limited research data which are available. Unfortunately, the research data are in very short supply. As a consequence, this section also will rely to some extent on my own clinical experience as an alcoholism counselor in working with persons who have disabilities.

Mental Illness. It is very likely that mental illness and the dual disability of substance abuse are the most problematic of the disability categories. There are approximately one million Americans who have chronic mental health problems. These individuals require continued maintenance with therapy or medication. In addition, there are several million other individuals who have recurrent mental health conditions, such as depression. According to Brown et al. (1989), the area of substance abuse and mental health has

received very little attention relative to the tremendous need. Brown's study of persons with schizophrenia indicated that from one third to one half of all cases included substance abuse problems that were recurring in nature. Similarly, Hellman (1981) stated that approximately 50 percent of all cases of borderline personality diagnosis include recurring substance abuse. In light of the popularity of this diagnosis at the present time, this figure truly is ominous. According to the Diagnostic and Statistical Manual of Mental Disorders, III, other personality disorders that include high levels of substance abuse include paranoid personality, compulsive disorder, histrionic personality, anxiety disorders, and phobias.

Brown (1989) contends that there is a need for separate chemical dependency treatment services for the mentally ill. The individual with mental illness may require follow-up support groups, self-help groups, and other forms of support which are sensitive to functioning level and personal needs. This is particularly true for persons who don't function well in normal group settings, such as persons with schizophrenia or borderline personality.

Other identified issues relative to mental illness and substance abuse are inadequate or unavailable treatment, a lack of aftercare, a lack of trained therapists who understand mental illness, and the appropriate use of psychotropic medication (Brown, 1981). A problem for some treatment facilities is the necessity for administering psychotropic medications, as these programs sometimes discourage or prohibit any mood-altering drugs. This particular issue also is salient to other groups of disabled individuals who require the use of regular prescription medication.

Orthopedic and Physical Disability. Adults with trauma generated disabilities frequently experience alcohol or drug-related problems of significant magnitude. There are a number of reports from rehabilitation sites and emergency rooms which support this contention (Rasmussen & DeBoer, 1980-81). For example, in 1982, O'Donnell and colleagues reported that 41 of 47 spinal cord injury cases treated in their rehabilitation unit were alcohol generated. This is the greatest percentage reported thus far, but the figure is not out of line with other data. Rehabilitation sites, including vocationally-oriented facilities, have reported on the problem of substance abuse on numerous occasions. The estimates of substance abuse or alcoholism from those reports range from 15-70% of the total clientele.

There are at least two studies which report or suggest that persons immediately prior to, or six months after, their spinal cord injury were drinking an average of six beers a day, possibly higher on the weekend. Heinemann et al. (1983) reported that their rehabilitation sample of 103 spinal cord injured patients scored an average of seven on the Michigan Alcoholism Screening Test. In fact, 49% of the persons in that study posted M.A.S.T. scores of six or higher. For comparison, it is typical to assign a problem drinking cutoff score of five on the M.A.S.T., where any score above that figure suggests problem use. They also reported that over 75% of the persons in their study continued to drink alcohol with the same pattern of frequency and quantity after they had completed rehabilitation. In spite of this, only 13% of the subjects thought they might have a problem with drinking, and only one person had received any prior treatment.

In our own study of 57 college students with orthopedic disabilities, we differentiated between those who were disabled due to a congenital condition as opposed to a trauma incident. We discovered that students with a congenital disability consume very moderate quantities of mood-altering substances. They used far fewer drugs and they drank less frequently than either the general student population or the students with trauma disabilities (Moore &

Siegal, 1989).

By contrast, the students with trauma disabilities drank more and used a wider variety of drugs than the general student population. Also, they scored significantly higher on an alcohol problem check list than the general student population. Twenty percent of the disabled students were classified as having experienced a significant problem with substance abuse, and the criteria for inclusion in this category were more stringent than most other studies involving college students. Of the 13 students in this high problem category, 10 of the students had sustained their disability while they were intoxicated or high. In spite of this, these students continued to use mood-altering substances after the onset of their disability.

Presently there are no mechanisms which exist that can locate or identify those individuals at highest risk for sustaining a trauma disability or continuing to place themselves at risk through abuse. In a related study, we are involved in an investigation of the mortality rates of college students with physical disabilities. Apparently, this rate is much higher than the non-disabled population. There are indications that a number of these untimely deaths are in some way related to substance abuse.

Other issues identified as potential risk factors for substance abuse among persons with orthopedic disabilities include chronic pain, self-medication, and the management of muscle spasms. For example, Malec and colleagues (1982) indicated that marijuana use has been reported as a means for controlling muscle spasms. However, my own interviews with research subjects suggest that this practice may not be as prevalent as previously believed. This is not to say that persons with physical disabilities do not use marijuana on a regular basis, however.

In regard to prescription medication, our studies with college students indicate that an average of two prescribed medications are taken at any given time, but 30% take three or more medications. As individuals with orthopedic disabilities become older this can average five at one time (Kirukabaran et al., 1986). It simply is not possible to control alcohol intake while predicting the side effects of multiple prescribed medications. The potential side effects of the drugs alone cannot even be known.

Our physically disabled research subjects inform us that they must learn about how to drink socially on their own. Although they are given some information during physical rehabilitation, the material is not appropriate to the types of social settings many young persons find themselves in. Therefore, it is frequently the role of the disabled peer group to share information on how to safely indulge. For example, one common practice is to discontinue habit forming drugs, such as Valium, immediately prior to an evening of drinking. Unfortunately, our research also has indicated that many students do not realize the classifications of the drugs they are taking, and consequently they are less aware of the risks from side effects (Moore & Siegal, 1989). These side effects sometimes can and do lead to lethal miscalculations.

Learning Disability. This category serves as a rubric for several other ones, including attention deficit disorder and hyperactivity. These terms are not synonymous, but frequently they are used in a similar manner. Learning disability and attention deficit disorder far and away are the most prevalent and serious handicapping conditions that exist in children. As illustrated in Table 1, approximately 1.6 million school children receive special education services due to this disability. It is a particularly difficult group to study relative to adult substance abuse. This is because labels of learning disability are dropped as soon as an individual reaches the middle grades of high school, and approximately two-thirds of all learning disabled persons

completely lose this label upon graduation.

In spite of the problem of identification, as early as the 1960's researchers were expressing fears that the rate of alcoholism was inordinately high among persons who were hyperactive or learning disabled. Several longitudinal studies have been initiated in order to study various aspects of these conditions, but results are inconclusive to date.

Blouin, Bornstein, and Trites (1978) conducted a longitudinal study that focused on "hyperactive" school children. They divided their study into children who had difficulty in school and were labeled hyperactive and a control group of students who had experienced difficulty but did not receive the hyperactive label. Records were maintained on which of the hyperactive children received medication specific to their condition, such as Ritalin.

In such a design, one would expect that the children without a disability who had trouble in school would go on to experience higher levels of substance abuse in later years. However, the opposite was found to be true in this study. Students who were labeled with learning disability had higher average alcohol consumption and associated problems than did the behavior problem control group. Blouin et al. did not find, however, that Ritalin use in any way contributed to the number of subsequent alcohol problems for the hyperactive group. Gittelman and colleagues (1985) reported that at least 20% of the hyperactives in their study could be diagnosed as having a recurring substance abuse disorder utilizing their criteria in the DSM III.

The studies by Alterman et al. (1985) focused their attention on the potential correlation between hyperactivity and substance abuse. They postulated that there may be a separate subgroup of alcoholics who were hyperactive as children, and they went on to suggest that the behavioral manifestations of alcoholism may be different among these individuals. Attempting to retrospectively assign a label of hyperactivity or learning disability to patients in alcoholism treatment proved sufficiently difficult that they were unable to fully test their theories.

Much work remains to be conducted regarding the potential correlation between learning disability and adult substance abuse. Thus far, the limited results do not indicate that the use of Ritalin or other medication for hyperactivity has any bearing on subsequent substance abuse. However, the number of correlates shared between learning disabled students and adolescent substance abusers cannot be overlooked. These include recurring difficulties in school, problems with authority, problems in the family of origin, impulsive behavior, low self-esteem, and a high incidence of juvenile delinquency.

Severe hearing impairment and deafness. A number of professionals have expressed concerns about substance abuse among hearing impaired populations. Although there is a great deal of clinical concern, there remains a very limited amount of research upon which to make generalizations. The reasons for the limited research relate in part to the amount of difficulty required to conduct such research. Severe hearing impairment is very low incidence, approximately .1% of the population, and therefore it is difficult to define a large cohort of individuals for study. In addition, individuals who are deaf tend to socialize in closed communities. Therefore, it requires a great deal of time and resources in order to accomplish drug epidemiology studies in this disability area.

Boros (1981) and others also have indicated that there is great deal of stigma attached to drinking within the deaf community. One consequence of this stigma is that persons do not discuss their drinking behaviors, nor is it common that interventions are attempted within the deaf community.

To date, there are two published studies most frequently referred to

regarding psychoactive drug use. Locke and Johnson (1981) studied the drinking habits of 46 adolescents attending a high school for the deaf. They discovered that drinking and drug use patterns among these individuals were similar to the patterns for non-disabled students at approximately that same time in history.

There were some unexpected results from that study. Ten percent of the respondents indicated that they had encountered legal problems due to their drinking (DWI, theft, fights). This figure appears to be quite high, supporting a concern which I have about persons in several disability categories. The concern focuses on the apparent tendency for the disabled to encounter more serious consequences from substance abuse than the non-disabled population, even when consumption patterns are similar. There are several factors which contribute to this, and these will be discussed in a following section.

In 1979, Isaacs, Buckley, and Martin studied the drinking patterns of 39 deaf individuals in the Rochester, N.Y. area. They found that the patterns of consumption were similar to those in the general population. The highest rates of consumption were reported by persons who had attended schools for the hearing impaired. This feature supports the role of peer associations in the consumption of mood-altering substances, even among persons with severe disabilities.

A particular problem in addressing substance abuse prevention among the hearing impaired relates to the difficulty in permeating deaf peer groups with drug education information. For example, I have been informed by colleagues working in this specialty that until recently there were no sign language words for the concept of "sobriety". These types of language problems decrease the effectiveness of chemical dependency treatment, even when a mainstreamed program utilizes a sign language interpreter.

This disability category continues to be very poorly served relative to any substance abuse education, intervention, and treatment needs. The research reported in this category has been based on the clinical experiences of several persons and research data derived from only 83 subjects.

Visual Impairment. To date, there have been no definitive studies conducted relative to the prevalence of substance abuse among the visually impaired. This is not to say that there has been a lack of clinical concern about this area, however. Glass (1981) indicated that it is particularly important for clinicians to diagnose the chronology of the onset of blindness versus the onset of substance abuse. He differentiated between the Type A and Type B substance abuser, the former abusing drugs prior to the onset of disability. He suggested among other things that the Type A abuser is much more difficult to treat in a clinical setting, and category may occur as frequently as the Type B abuser. Although his observations have not been confirmed among the visually impaired, his typologies for classifying substance abuse and disability fit other conditions, most notably orthopedic and brain injury disability categories.

The only study which could be located in the literature with a substantial population of visually impaired subjects was reported by Motet-Grigoras and Schuckit (1986). They studied the drug use patterns of 42 "disabled" college students and staff at a large university--one-third of whom (n=14) were visually impaired. The responses of these disabled students were compared with those of 900 non-disabled students and staff. They reported that there was a greater positive history of alcoholism in the family of origin among the disabled sample.

Developmental Disability or Mental Retardation. Slightly more informa-

tion is available on substance use and misuse by persons in this category of disability, but data are by no means conclusive. As early as the 1930s, there were concerns expressed that mentally retarded persons who lived in institutions had higher rates of alcoholism than the general public. Early studies were conducted along this line of reasoning, and the results tended to show that this assumption was not correct.

DiNitto and Krisheff conducted two studies in 1981 and 1984 among mentally retarded adults and their advocates in Florida. Their studies included over 200 individuals. The findings were that, by and large, the consumption patterns of retarded adults were less than or equal to the general population. However, they did discover that seven percent of their sample either used alcohol on a daily basis or had run into recurring problems because of use. One finding was particularly outstanding in its implication. They found that one-third of the individuals studied had encountered occupational or work-related problems due to alcohol consumption. This is a huge percentage of the population considering the moderate amounts of drinking which were documented. Again, this finding tends to demonstrate the vulnerability of persons with disabilities to suffer greater than usual consequences from any given episode of substance abuse.

Extensive ethnographic interviews of persons with mental retardation and their families were conducted over a period of five years by Edgerton (1986). He concluded that the alcohol and drug use among these respondents tended to be less than the general population. He also concluded that the family is the most important factor in determining and reinforcing substance use/abuse among persons with mental retardation. Edgerton's studies also tended to show that persons with mental retardation are somewhat more vulnerable to problems associated with substance abuse for any given level of consumption.

Westermeyer, Phaobtong, and Nider (1988) studied matched samples of mildly retarded adolescents with and without diagnosed substance abuse problems. These two samples consisted of 40 individuals each. They discovered that substance abuse is likely to occur early if it is to be diagnosed as problematic. For example, those researchers found that six of the 40 adolescent problem users already had been charged with DWI's. Another finding of interest was that 25% of the problem group reported repeated episodes of intoxication prior to the age of 15. Some researchers have postulated that the age of onset should be delayed for persons with mental retardation, due to social immaturity. Instead, it appears that some use begins at about the same age as for the non-disabled, although the negative consequences from abuse occur more frequently.

One of the greatest areas of concern regarding substance abuse and the developmentally delayed relates to the use of prescribed medications-- especially those used in a long-term regimen. Originally, some clinicians were concerned that the use of mood-altering psychotropic medications would lead to other forms of substance abuse. Subsequent studies have not supported this.

There is agreement that very real problems can exist relative to medication side effects, however. These include tardive dyskinesia (affected gait and stereotyped movements) and other chronic health problems created by strong medication. There is a great deal of concern that medications potentiate the effects of alcohol. Frequently, the consumer and advocates, such as group home personnel, do not fully appreciate the risks of drinking in combination with prescribed drugs.

When conducting prevention activities with persons who are mentally retarded, it would be wise to target sheltered workshops and other employment sites for addressing potential substance abuse. This is in response to the number of work-related problems that this population has been shown to experi-

ence due to alcohol abuse (Krishef & DiNitto, 1984). In light of Edgerton's (1986) research, social workers and other personnel should consider the psychoactive drug use (including medications) when placing individuals into independent living situations.

The above section is an overview of literature from this field. Persons interested in obtaining more information should consult the references or a previous paper published by the author (Moore & Polsgrove, 1989).

Special Problems When Studying Substance Abuse Among the Disabled

Low Awareness. There are a number of special problems which exist for anyone attempting to study the topic of substance abuse and disabilities. Undoubtedly, one of the greatest hindrances for study in this area is a general lack of awareness about the potential problems. From the perspective of a friend, family member, or concerned advocate, a disability is quite visible, but substance abuse problems are not. In fact, another presentation at this conference relates to substance abuse as a "hidden disability". Several misconceptions contribute to this lack of awareness. Most people do not perceive the disabled as accessible to environments where substance abuse occurs.

Professional awareness about substance abuse and persons with disabilities also is quite low. For example, disabled services providers in colleges frequently have reported to us that substance abuse problems among their students is minimal. Our research has suggested that this is not the case. In addition, these same professionals are not aware that treatment and intervention resources generally are not accessible or appropriate for persons with a serious disability.

Since professionals don't fully appreciate the risks of substance abuse associated with a severe disability, they are more reluctant to allow researchamong their consumer population. This issue of "gatekeeping" is sometimes considerable. There tends to be a reluctance to allow persons with disabilities to participate in research. This resistance is attenuated when the gatekeepers do not fully understand the issues at hand or the potential risk from substance abuse to their clientele. When conducting studies among disabled populations, I plan on expending nearly twice as much energy and resources in order to compile data as a comparable study with a non-disabled population. This form of resistance to research can take its toll.

The above problem of low professional awareness can be assisted when there are more specialists trained in both disability and substance abuse areas. If substance abuse issues are to be addressed adequately, there will need to be a cadre of professionals trained in both substance abuse and disability. Currently, we are involved in an Office of Substance Abuse Prevention demonstration project to increase professional awareness in a five state area relative to substance abuse and persons with disabilities.

Another problem when studying substance abuse among the disabled is that to a great degree, both disabled consumers and their advocates wish to avoid any additional stigmatizing labels. Aside from the societal problem of acceptance, anything that limits mainstreaming and employment possibilities is not always in the best interests of a person with a disability. Attention to substance abuse issues can be perceived as being such a stigmatization. Boros (1977) and others have discussed at length how the desire to avoid stigma can contribute to problems in this area. A finding such as some sub-populations of disabled individuals experiencing twice the general prevalence of alcohol abuse understandably is threatening to some persons. This information compli-

cates the task of promoting societal mainstreaming and acceptance.

Sampling Problems. One particular problem when conducting substance abuse research in this area is in defining study groups. Researchers to date have tended to create studies which include a number of differing handicapping conditions. The lack of homogeneous disability grouping makes it very difficult to extrapolate disability-specific risk factors from a data base. For example, the factors relating to substance abuse may be different between someone who is totally blind and an individual with partial visual impairment. Of even greater concern is the tendency to mix findings from persons with dissimilar disabilities, such as hearing impairment and orthopedic conditions.

Another sampling problem relates to the tendency to use single sites for studies. A single site data base may not be applicable to a larger disabled population, and, in fact, a number of site-specific variables may make the response patterns unique. Rehabilitation facilities immediately come to mind in this regard. For example, the age and other socio-demographic variables may vary by site as well with staff attitudes towards use of mood-altering substances. These and other factors are very likely to contribute to differing patterns of psychotropic drug use between sites.

Limited Resources. Research also is sparse in the area of disability and substance abuse because resources are in limited supply. To date, the federal government and state agencies have been reluctant to fund larger studies on this topic. Agencies have tended to exclude disability-specific substance abuse funding as not falling under their mandated services. Fortunately, this trend appears to be changing. The Office of Substance Abuse Prevention and other federal agencies now appear to be much more interested in conducting disability-specific studies. Some are even attempting to recruit researchers into this area of inquiry.

Risk Factors Unique To Disability

In spite of the limited drug research to date, there are several concerns which have been identified relative to substance abuse and persons with disabilities. These areas of concern have been gleaned from both research and clinical report data.

Entitlement. A topic that requires a great deal of attention and explanation is that of "entitlement." This phrase, which I have coined, goes beyond the concept of drug use enabling. An example would be helpful in this case. A research subject in my project is quadriplegic and he has been convicted of drug trafficking in cocaine. He was initially jailed, but his physical condition necessitated his release. Consequently, he was assigned 500 hours of community service in lieu of incarceration. He is now handing out "Just Say No" pamphlets from a local radio station.

This individual experienced a drug-related disability onset at age 17. He is now 23 years of age, and he has had approximately 11 more emergency room admissions since that time which in some way were alcohol or other drug related. Hospital personnel apparently never asked questions which would determine his levels of alcohol and other drug use. He has been forced to leave two colleges, and his family apparently has limited contact with him. All of these things are directly related to his drug use. He is so severely paralyzed that he cannot pick up his own bong and light it when he wants to smoke marijuana. He has convinced someone to do this activity for him at least once a day -- nearly everyday, for the past six years. In spite of these conse-

quences, this individual has never received intervention, nor has he been involved in any drug treatment.

In this individual's case, as in many others, the fact that he is physically disabled has made identification of a substance abuse problem more difficult, and individuals who interact with him don't consider him to be chemically dependent. In addition, his friends frequently allow him to become more intoxicated and out of control than other peers simply because of his physical condition and the fact that he doesn't drive. The societal assistance rendered to him in the form of enabling even extends to the medical personnel charged with his rehabilitation. He reported that several hospital staff in his medical rehabilitation program would remove him from the facility in order to help him get high on marijuana.

A common concept shared by the non-disabled population is this feeling that, "God, I'd get high too if something like that happened to me!" Ironically, disabled consumers do not share this opinion. When polled about their beliefs concerning alcohol and other drug use, persons with disabilities indicated that they had no more right to use drugs than any other member of society (Moore & Siegal, 1989). In fact they felt that they were at higher risk from drug-related problems than the general population.

Physical Health Problems. Persons with compromised physical health are at very high risk for complications when they ingest any mood-altering drugs. The long-term health maintenance concerns of persons with disabilities can include mobility impairments, chronic infection, seizure control, and circulatory problems. These types of medical problems considerably extend the risk for alcohol and other drug problems. For example, DiNitto and Krishef (1984) found that over one-third of their sample of developmentally delayed adults were on anticonvulsant medication, but the majority of these persons still drank. This is a major consideration when addressing issues of alcohol use among this population.

Medication. Associated with chronic health problems is the long-term use of medication. Persons with disabilities tend to utilize a great deal of medication over an extended period of time. Studies have shown that some consumers average up to five concurrent prescribed medications (Kirubakaran, 1986).

The issue of prescribed medication necessitates that the disabled consumer be provided with very specialized information and education. For example, how does this individual get informed about "safe" ways of using socially accepted drugs such as alcohol? Handicapping conditions as diverse as rheumatoid arthritis, epilepsy and cystic fibrosis have been identified in the literature as being particularly problematic relative to abuse of alcohol in combination with prescribed drugs.

Issues relating to iatrogenic, or physician-induced drug abuse, cannot be overlooked. There continue to be reports that medication is provided more frequently and in larger doses than are actually needed. These conditions can contribute to abuse of mood-altering drugs, either by themselves or in combination with other substances such as alcohol. It is not uncommon for persons who receive prescribed anticonvulsants or anxiolytics (such as Valium) to be holding two or three simultaneous prescriptions for the same drug at any given time. These individuals then have the option of trading or selling these drugs for elicit substances such as marijuana, or they can simply take more of their prescribed medications than has been directed.

Atypical Childhood Experiences. Some handicapping conditions such as

learning disabilities, mental retardation or severe hearing impairment can involve growing up among peer groups that are different or out of the mainstream. These can include closed social systems which may not experience typical norming and controlling factors. These atypical childhood experiences can contribute to several problems, such as involvement in social systems where it is perfectly acceptable to abuse drugs. It has been speculated that some children with learning disability gravitate to such systems due to their unsuccessful school and peer experiences.

Another childhood scenario for some persons with disabilities includes isolation and loneliness. These conditions can contribute to boredom and lower self esteem, and both of these factors have been identified as a correlate of substance abuse. There is absolutely no question that issues of social isolation and self esteem must be addressed when planning substance abuse prevention among the disabled.

Another consideration in the area of atypical childhood experience is that of the family of origin. Limited references in the literature have suggested that persons with disabilities may have a higher incidence of family of origin problems than the general population (Motet-Grigoras and Schuckit, 1986). There is a need for additional research in this area in order to determine if family of origin problems are particularly salient to disability groups. The work of Edgerton (1986) also suggests that family drug use must be investigated when planning for prevention activities among young persons with developmental disabilities.

Sexuality. Another potential problem contributing to substance abuse is the issue of sexuality. In our studies of college students, the second highest correlation with heavy drug use was the sexual activity level of the disabled students. This finding was in direct contrast to what was expected. Originally, we had theorized that sexual frustration and isolation may contribute to increased drug use. In fact, the disabled students consumed drugs for many of the same reasons as other students in college. One of these reasons was to promote or enhance sexual experiences.

Similar motivations for substance abuse have been sited as reasons why some persons with mental retardation socialize in bars (Selan, 1979). The role of sexuality in the abuse of mood-altering substances requires additional research, as very little is understood about this topic.

Chronic Pain. Many references exist in the literature to the possible correlation between chronic pain and substance abuse. There is no question that self-medication with alcohol and other drugs due to pain can be a real issue. To date, too little data exist about this issue to make generalizations.

Drug Treatment Concerns For Persons With Disabilities

When addressing issues of substance abuse and persons with disabilities, it is important to consider the specialized or additional services that may be required for chemical dependency treatment. It must be recognized that a deaf interpreter or wheelchair ramp in themselves do not necessarily make an accessible treatment program. People should not think that conducting one in-service for the staff of the treatment unit in disabilities will provide them with sufficient background to deliver appropriate services. These types of quick fixes constitute tokenism, and persons with disabilities cannot afford this. At some juncture, we will have to face the fact that some disability-specific chemical dependency services of necessity will need specialized set-

tings. It might be appropriate to establish regional treatment centers for individuals who are low incidence in population, such as severe hearing impairment.

Disease Concept May Not Work. When designing treatment programs for persons with disabilities it may be appropriate to include treatment models based on concepts other than the disease model. The traditional disease model is not effective for all disabled individuals, and there are several reasons for this situation. Persons with severe disabilities tend to focus on their handicapping conditions far more than any alcohol or drug-related problems. These individuals, especially when mainstreamed with non-disabled, tend to believe that no one understands their situation. It has been reported in clinical records that the disease concept is not well accepted by persons with disabilities such as mental health problems (Brown, 1989). Because the disease model is more difficult for persons with disabilities to accept, it has been speculated that they will be less successful in working through the initial stages of chemical dependency treatment.

Medications. Chemical dependency treatment programs tend to be antagonistic toward the use of habit-forming medications. A number of individuals with disabilities who present for treatment are on drug regimens. Frequently, physicians and consumers are reluctant to give up these drugs for fear of adverse consequences. In this case, treatment programs find themselves fighting the consumer, the physician, and sometimes even their own program philosophies and policies regarding drug use by individuals actively involved in treatment. One implication from this medication dilemma may be that additional health promotion approaches will need to be incorporated in chemical dependency treatment for individuals on prescribed drug regimens.

"Handicapped" Behavior. Chemical dependency treatment program personnel would never think of enabling drug use among their clientele, but they are far less experienced with individuals who will use their "handicapped behaviors" against the staff. Handicapped behaviors aimed at getting attention or escaping from logical consequences tend to be far more successful in environments where the professional staff are unfamiliar with those actions. As a consequence, the counseling staff will be less effective with a disabled individual until they are able to counter such manipulations.

It seems likely that persons with disabilities who need chemical dependency treatment also will be those individuals most likely to use their disability for leverage. This assumption is based on the behavior of the non-disabled person in drug treatment, where an individual will attempt to set him or herself apart from other patients. Studies have indicated that counselors look more favorably on disabled clients than they do those clients with alcoholic or mental health problems (Colbert, et al.,1973). This favorable orientation may have some benefits for a disabled client, but it also places that individual in a position where she or he has increased leverage to manipulate staff (Greenwald et al., 1973).

Involvement of Significant Others. Significant others, including family members, friends, and attendant staff need to become involved in any chemical dependency treatment program. It is very important for individuals with limited resources and alternatives to receive consistent feedback from sources of support. Involving family and friends in treatment is particularly salient when these persons may not fully understand the degree of risk or problem that an individual is facing.

Aftercare. The aftercare requirements of a successful chemical dependency treatment program are much greater for an individual with a disability. This relates to the number of problem-solving situations that must be included in an individual's recovery. Frequently, this includes vocational or employment training, or other skill acquisition activities oriented toward assisting with productivity. If chemical dependency treatment is to be successful, these components must be addressed in the treatment plan, and responsible parties should assist with advocacy in particularly difficult areas.

With a more limited repertoire of social and behavior possibilities, a disabled individual may find it more difficult to alter a lifestyle that is oriented toward substance abuse. This factor places an even greater burden on the program of aftercare in maintaining any changes which have been initiated. When a treatment program fails to address this component of recovery, the consequence too often is the conferring of yet another label-- revolving door alcoholic. This label is not fair to the disabled, as it is not necessarily the case at all. Instead, it is far more likely that the aftercare requirements simply have not been met.

Future Directions

A number of activities need to be initiated if progress is to be made in this field. One of the first steps should be the initiation of more consumer and professional education specifically targeted toward substance abuse risk among special populations. Concomitant with this activity is the need for more research on the basic incidence and prevalence of substance use/abuse by persons with various disabilities. We need a better understanding of the scope of substance abuse problems and the inherent risks associated with specific disabilities.

Methods for providing education, prevention, intervention, and treatment need to be developed, and these approaches should be extensively evaluated. Along this line, additional cross-training for professionals in both substance abuse and disability is required. We also need more specialized written materials on this subject area. As in other areas of substance abuse, a networking of resources and personnel, possibly through a clearinghouse, would be of tremendous assistance.

Finally, consumers, their advocates, and professionals need to lobby for increased governmental attention on this issue. Funds will be needed in order to initiate the research and service delivery which are required.

Closing

I would like to close with a short observation. Over the course of my 20 year exposure to special education and persons with disabilities, I have visited institutions where individuals with mental retardation were treated very badly. Those experiences left me devastated and doubting our basic humanity. Sometime later I sat in Ohio State University stadium and watched 15,000 people cheer for one such individual during Special Olympics. This was a very positive manifestation of the progress which had been made during the intervening years.

At this point in time, individuals with disabilities are at another important juncture. It is now possible for a disabled consumer to acknowledge vulnerability to the same conditions that affect everyone else. This is a new and significant social step. It is my hope that the people in this room today can assist in helping to make this transition happen. Enjoy this conference,

and by all means, take it home with you.

REFERENCES

Alterman, A; Tarter, R; Baughman, T; Bober, B; Fabian, S; (1985). Differentiation of alcoholics high and low in childhood hyperactivity. Drug and Alcohol Dependence. 15 111-121.

Anda, R.F.; Williamson, D.F.; Remington, P.L. (1988). Alcohol and fatal injures among U.S adults. JAMA. 260(17) 2529-2532.

Blouin, A; Bornstein, R; Trites, R; (1978). Teenage alcohol use among hyperactive children: A five year study. Journal of Pediatric Psychology. 3(4) 188-194.

Boros, A. (1981). Activating solutions to alcoholism among the hearing impaired. in Schecter, A.J.(ed). Drug dependence and alcoholism: Social and behavioral issues. New York: Plenum.

Boros, A; Sanders, E. (eds). (1977). Dimensions in the treatment of the deaf alcoholic. Kent, OH: Kent State University.

Brown, V.B.; Ridgely, M.S.; Pepper, B; Levine, I.S.; Ryglewicz, H. (1989). The dual crisis: Mental illness and substance abuse: Present and future directions. American Psychologist. 44(3) 565-569.

Colbert, J.N.; Kalish, R.A.; Chang, P. (1973). Two psychological portals of entry for disadvantaged groups. Rehabilitation Literature. 34(7) 194-202.

DiNitto, D.M.; Krishef, C.H. (1983/84). Drinking patterns of mentally retarded persons. Alcohol Health & Research World. 40-42.

Edgerton, R.B. (1986). Alcohol and drug use by mentally retarded adults. American Journal of Mental Deficiency. 90(6) 602-609.

Gittelman, R; Mannuzza, S; Shenker, R; Bonagura, N. (1985). Hyperactive boys almost grown up. Arch Gen Psychiatry. 42 937-947.

Glass, E. (1980/81). Problem drinking among the blind and visually impaired. Alcohol Health and Research World. Wtr 8(2) 20-25.

Greenwald, S; Carter, J; Stein, E. (1973). Differences between background, attitude, functioning, and mood of drug addicts, alcoholics, and orthopedic patients. International Journal of the Addictions. 8(5) 865-874.

Heinemann, A.W.; Keen, M; Donohue, R; Schnoll, S. (1988). Alcohol use by persons with recent spinal cord injury. Arch Phys Med Rehab. 69 619-624.

Hellman, J.M. (1981). Alcohol abuse and the borderline patient. Psychiatry. 44 307-317.

Isaacs, M; Buckley, G; Martin, D. (1979). Patterns of drinking among the deaf. American Journal of Drug and Alcohol Abuse. 6(4) 463-476.

Kirubakaran, V; Kumar, N; Powell, B; Tyler, A; Armatas, P. (1986). Survey of alcohol and drug misuse in spinal cord injured veterans. Journal of Studies in Alcohol. 47(3) 223-227.

Kraus, J.F.; Morgenstern, H; Fife, D; Conroy, C; Nourjah, P. (1989). Blood alcohol tests, prevalence of involvement, and outcomes following brain injury. American Journal of Public Health. 79(3) 294-299.

Locke, R; Johnson, S. (1981). A descriptive study of drug use among the hearing impaired in a senior high school for the hearing impaired. in Schecter, A. J.(ed) Drug dependence and alcoholism: Social and behavioral issues. New York:Plenum.

Malec, J; Harvey, R; Cayner, J. (1982). Cannabis effect on spasticity. Arch Phys Med Rehab. 63 116-118.

Moore, D; Polsgrove, L. (1989). Disabilities, developmental handicaps and substance misuse: A review. Social Pharmacology. 3(4) 375-408.

Moore, D; Siegal, H. (1989). Double trouble: Alcohol and other drug use among orthopedically impaired college students. Alcohol, Health and Research

World. 13(2) 118-123.

Motet-Grigoras, C; Schuckit, M. (1986). Depression and substance abuse in handicapped young men. Journal of Clinical Psychiatry. May47 234-237.

O'Donnell, J; Cooper, J; Gessner, J; Shehan, I; Ashley, A. (1981/82). Alcohol, drugs and spinal cord injury. Alcohol, Health, and Research World. 6(1) 27-29.

Rasmussen, G; DeBoer, R. (1980/81). Alcohol and drug use among clients at a residential vocational rehabilitation facilty. Alcohol Health and Research World. Wtr 8(2) 48-56.

Selan, B. (1979). In a bar retarded persons are idiots no more. Paper presented at the Center for Alcohol and Other Drug Studies Training Institute. Wausau, Wis. Feb.

Weingarden, S.I.; Graham, P.M. (1989). Falls resulting in spinal cord injury: Patterns and outcomes in an older population. Paraplegia 27 423-427.

Westermeyer, J; Phaobtong, T.; Neider, J. (1988). Substance use and abuse among mentally retarded persons: A comparison of patients and a survey population. AM Drug Alcohol Abuse. 14(1) 109-123.